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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,235	07/21/2003	Corbin Coyes	2483CR-1	7540

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EXAMINER

COLLINS, GIOVANNA M

ART UNIT PAPER NUMBER

3672

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/624,235

Applicant(s)

COYES ET AL.

Examiner

Giovanna M. Collins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 6-8 is/are allowed.
- 6) ☒ Claim(s) 4 and 9 is/are rejected.
- 7) ☒ Claim(s) 5 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

The affidavit under 37 CFR 1.132 filed 4/21/05 is insufficient to overcome the rejection of claims 4 and 9 based upon Hahn '248 in view of Spears ' 148, Harrison '636 and Nixon '068 as set forth in the this Office action because:

Evidence of long felt need must establish a problem that has existed over a long period of time, and that the invention has actually solved the problem. In re Mixon, 470 F.2d 1374, 176 USPQ 296 (CCPA 1973). The affidavit does not disclose that a problem existed and that the claimed invention actually solved the problem.

Evidence of commercial success must demonstrate that: 1) the product is a commercial success (relative market share, not absolute sales in a vacuum), 2) there is a nexus between the invention and the commercial success (that the success is not simply due to advertising or other factors not related to the merits of the invention), and 3) that the showing is commensurate in scope with the claims. In re Thompson, 545 F.2d 1290, 192 USPQ 275 (CCPA 1976); In re Noznick, 478 F.2d 1260, 178 USPQ 43 (CCPA 1973). Evidence which addresses the number of sales, without providing market share information, is insufficient to establish commercial success. In re Baxter Travenol Labs, 952 F.2d 388, 21 USPQ2d 1281 (Fed. Cir. 1991). The affidavit does not disclose the commercial success was due to the product begin different from another available products nor does it indicate if there product is being sold at normal market rate.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn '248 in view of Spears '148, Harrison '636 and Nixon '068.

Hahn discloses an insert capable of being used in the shell of a ball and seat valve finding application in a reciprocating downhole pump, comprising a cylindrical tubular body forming a through-bore and having vertically spaced apart top and bottom rings (1,12) joined by circumferentially spaced apart, inclined ribs (2), the rings and ribs, the ribs supporting inwardly protruding, flanges having upper inner ends arching together toward the longitudinal axis of the body, and an upwardly directed, elongate reinforcing member (14) connected with the flanges at their upper inner ends, the reinforcing member and flanges protruding above the top ring; Hahn does not disclose the ribs are inclined and shaped to form helical side openings, the flanges are helically directed or have curved bottom surfaces. Spears teaches flanges that are helically directed. Spears further teaches this design increase the cross sectional flow area for the fluids flowing through a bore and decreases frictional drag and lessens the effect of the restriction to the flow of fluids (col. 7, lines 40-45). Nixon teaches (figs. 1) an insert

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with ribs that are inclined and shaped to form helical side openings. Nixon teaches this design allows the surface wear on the valve to be substantially uniform so that valve will have a smooth surface a close fit for the valve seat (page 2, lines 9-12). Harrison teaches an insert with flanges have a curved bottom surface that helps to cushion the impact of the ball during operation (col. 4, lines 53-56). As it would be advantageous to reduce friction drag and have surface wear uniform to have a close fit for the valve seat and to cushions the impact of the ball valve, it would be obvious to one of ordinary skill in the art to further modify the insert disclosed by Hahn to have the ribs are inclined and shaped to form helical side openings ,the flanges are helically directed and have curved bottom surfaces as taught by Nixon, Spears and Harrison.

Referring to claim 9, Hahn, discloses three ribs supporting three flanges.

### ***Allowable Subject Matter***

Claims 1-3, and 6-8 are allowed.

Claims 5 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

2. Applicant's arguments filed 4/21/05 have been fully considered but they are not persuasive. Referring to the Applicant's arguments concerning the Hahn reference, related the meaning of insert, in the Specification there is no special definition given for

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the meaning of insert according the Merriam-Webster Dictionary 10<sup>th</sup> edition, an insert is a something that is insert. The device disclosed by Hahn inserted into another body therefore qualifies as an insert.

3. Referring to argument that the insert discloses by Hahn cannot be used in the shell of a ball and seat valve, the fact the head (14) has threads does not negate the fact the insert is capable of being used in the shell ball and seat valve. Furthermore, the fact the Applicant's insert is stationary relative to the shell in which it locked when is use is a moot point since this feature is not recited in the claims.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 571-272-7027. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*gmc*  
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